

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE MISSOURI AND NORTH ARKANSAS RAILWAY NEAR LYDALISK, ARK. ON SEPTEMBER 26, 1923.

November 1, 1923.

To the Commission

On September 26, 1923, there was a head-end collision between a passenger train and a freight train on the Missouri & North Arkansas Railway near Lydalisk, Ark., which resulted in the death of 1 employee, and the injury of 16 passengers, 1 news agent and 3 employees.

Location and method of operation

This accident occurred on the Second District, which extends between Harrison and Heber Springs, Ark., a distance of 116.99 miles, this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The point of accident was 1.23 miles south of Lydalisk, approaching this point from the north, the track is tangent a distance of 558 feet, followed by a 5-degree curve to the right 485 feet in length, a tangent 735 feet in length, and then a 3-degree 20-minute curve to the left 1,643 feet in length, the accident occurring on this curve 109 feet from the northern end. The grade for 3,230 feet to the point of accident is 0.2 per cent descending. Approaching from the south there is a tangent 369 feet in length, followed by the curve to the right on which the collision occurred; the grade is slightly descending, then level for a distance of 698 feet, and is then 0.30 per cent ascending for a distance of 764 feet to the point of accident. A clear view of the point of accident from the engine cab of a north or southbound train can be had for a distance of about 920 and 1,070 feet, respectively.

The weather was clear at the time of the accident, which occurred ^{between} 12.05 and 12.09 p.m.

Description.

Northbound passenger train No. 203, consisted of one baggage car, one combination mail and passenger car, and one coach, all of wooden construction, hauled by engine 15, and was in charge of Conductor Beal and Engineman Tucker. At Edgermont train order No. 8, Form 31, was received, reading as follows:

"No. 202 Eng 15 wait at Arlberg until twelve thirty five 12 35 p.m. for extra 6 south."

Arlberg is 4.9 miles north of Lydalisk and train No. 202 is scheduled to pass that point at 12.20 p.m. This train departed from Edgefont at 11.19 a.m., 6 minutes late, left Shirley, 9.15 miles from Lydalisk and the last open telegraph office, at 11.50 a.m., according to the train sheet, 6 minutes late, and collided with extra 6 at a point south of Lydalisk while traveling at a speed estimated to have been between 5 and 10 miles an hour.

Southbound freight train extra 6 consisted of 10 cars and a caboose, hauled by engine 6, and was in charge of Conductor Layse and Engineman Mitchell. At Leslie, 12.25 miles from Arlberg, a copy of train order No. 8, Form 31, previously quoted, was received, the train departing from that point at 10.50 a.m., passed Arlberg, the last open telegraph office, at 11.49 a.m., according to the train sheet, and while traveling at a speed variously estimated to have been between 10 and 20 miles an hour collided with train No. 202.

The force of the impact forced train No. 202 backward a distance of about 24 feet, the front ends of both engines being considerably damaged, the first two cars of extra 6 were derailed, but remained upright. The employee killed was the fireman of extra 6.

Summary of Evidence.

Engineman Tucker, of train No. 202, stated that his train was running at a speed of between 20 and 25 miles an hour when he first observed extra 6 approaching about 5 or 6 pole lengths ahead, he immediately sounded one short blast of the whistle, made an emergency application of the air brakes, opened the sanders and reversed the engine. He jumped when the engines were about two car lengths apart, and said his own train was then moving at a speed of between 5 and 8 miles an hour. The statements of Fireman Gibson practically corroborated those of Engineman Tucker. Conductor Beal stated his train was running at a speed of about 20 miles an hour when he felt the air brakes applied in emergency just before the accident, and that the train had ^{nearly} stopped when the collision occurred.

Conductor Mayse, of extra 6, stated that after receiving train order No. 8 at Leslie he got on the gangway steps on the left side of the engine as it passed the station and delivered the orders to the fireman, shouting across the engine cab to Engineman Mitchell what he called the high points of the orders, as follows: "will meet 14 at Heber Springs; meet 202 at Arlberg due at Arlberg at 12.10; got 6 hours 10 minutes to get to Kensett," the engineman replying in a manner indicating that he understood, Conductor Mayse was in the caboose approaching Arlberg, noticed that the speed did not indicate that his train was preparing to stop for train No. 202 and when about half the train had passed the water tank he opened the air valve in the caboose, reducing the speed from about 15 miles an hour to about 3 or 4 miles an hour; he then closed the valve and believing Engineman Mitchell understood the situation he jumped off on the station platform and went back to see the operator, who had been standing on the platform with a message for him, and which he had failed to receive on account of opening the air valve. The rear brakeman remained on the caboose until reaching the south switch, about 6 car lengths south of the station, then gave stop signals and got off to throw the switch to permit the train to back in on the siding. Conductor Mayse then noticed that the engine was working steam, and realizing that the train was not stopping, he shouted to the rear brakeman to stop it; the rear brakeman immediately gave stop signals and ran after the train, but could not overtake it.

Head Brakeman Wyatt, of extra 6, stated that he received the orders from the conductor and gave them to the engineman, and that the Conductor did not get on the steps of the engine and talk about them. Head Brakeman Wyatt read the orders after the engineman had read them, and misread the name "Arlberg" as "Shirley", which is 14.03 miles south of Arlberg, and understood that the engineman intended to go to Oakvale, 4.75 miles from Shirley, for train No. 202. When passing Arlberg he said the engineman sounded the whistle as if answering a proceed signal from the rear. Approaching Lydalisk the engineman called for a signal from the rear and he said he went back to the caboose, found no one in it, and came back and reported to the engineman, who made no reply but dropped his head as if pondering what he should do. About five minutes after returning from the caboose, Engineman Mitchell suddenly shouted a warning, and made an emergency application of the air brakes. Brakeman Wyatt said the speed of the train at this time was about 18 or 20 miles an hour.

Engineman Mitchell, of extra 6, stated that Head Brakeman Wyatt delivered some orders to him which he supposed were received from Conductor Mayse, and after reading the orders he gave them to the fireman, who read and returned them. Engineman Mitchell said that he mis-read the order which provided for train No. 202 to wait at Arlberg until 12.35 p.m., reading the word "Arlberg" as "Shirley". Approaching Arlberg he saw the operator standing on the platform with a message or order in his hand, and he reduced the speed to about 8 or 10 miles an hour, after passing the station the fireman looked back and said they were getting a proceed signal, and he proceeded, intending to go to Oakvale for train No. 202. He stated that he did not notice the air brakes being applied from the caboose when passing Arlberg, and did not know anything about Brakeman Wyatt having gone back to the caboose or his saying that there was no one in the caboose. While running at a speed of about 15 miles an hour, he saw train No. 202 approaching on the curve ahead, about 5 or 6 car lengths distant, he immediately applied the air brakes in emergency, at the same time shouting a warning to the fireman and head brakeman, and jumped from the cab window when the speed of the train had been reduced to about 10 or 12 miles an hour.

Operator Hazlett, on duty at Arlberg, said that when the caboose of extra 6 passed, he saw Conductor Mayse on the rear platform, with his hand on the brake valve handle, at this time the train was slowing down and he thought the conductor was applying the air brakes. Traveling Auditor Rogers was at Arlberg when extra 6 passed, and heard the brake shoes grinding against the wheels, indicating that the brakes had been applied. When Operator Hazlett realized that extra 6 was not going to stop, unsuccessful efforts were made to hold train No. 202 at Shirley.

At the time the wait order was issued, train No. 202 was a few minutes late on its time-table schedule, while the crew of extra 6 was in possession of a 15-mile-an-hour slow order covering the entire territory from Leslie to Heber Springs, a distance of 61.57 miles. Extra 6, however, was operated at a higher rate of speed than 15 miles an hour, which undoubtedly accounts for the fact that it reached Arlberg considerably ahead of the time at which train No. 202 would have reached that point under its time-table schedule. As a matter of fact, extra 6 passed Elba, 10.06 miles from Leslie, at 11.22 a.m., having traveled this distance at an average speed of 19 miles an hour, and at 11.25 a.m., the dispatcher sent a message to the conductor, addressed to him at Arlberg, calling attention to the fact that his train was exceeding the speed prescribed in the order and asking for an explanation.

Conclusions

This accident was caused by extra 6 occupying the main track on the time of an opposing superior train, due primarily to the failure of Engineman Mitchell to read a wait order correctly.

While the word "Arlberg" as written in the copy of train order No. 8 held by the crew of extra 6 was not plainly written, there is no apparent reason for the failure of either Engineman Mitchell or Head Brakeman Wyatt to read the order correctly. Having misread the order, however, they supposed train No. 202 would wait at Shirley instead of Arlberg until 12.35 p.m., whereas it is due out of Shirley on its time-table schedule at 11.44 a.m., and actually departed on the day of the accident at 11.50 a.m., six minutes late.

Under rule 210-a, governing the handling of train orders on Form 31, an engineman is required to read such orders to his conductor and then to sign the conductor's copy. Conductor Mayse, however, was anxious to get his train over the road as far as possible and keep within the requirements of the so-called 16-hour law, and said that he did not overlook the requirements of the rule, but simply took a chance that the engineman would understand the situation in order to avoid the delay incident to stopping the train while the engineman read and signed the order.

Engineman Mitchell had been employed as an engineman on this railway about one year, previous to which he had been employed a total of about eight months as a fireman, on other railroads he had had about five years' experience as a fireman and a few months as an engineman. Conductor Mayse had had less than one year's experience on this railway as a conductor, but had had about 13 years' experience on other railroads as brakeman and conductor. Head Brakeman Wyatt had been employed about 15 months as brakeman. The crew of extra 6 had been on duty between 11 and 12 hours, after from 12 to 36 hours off duty, the crew of train No. 202 had been on duty nearly 4 hours, after 11 hours off duty.

Respectfully submitted.

W. P. BORLAND

Director.